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=> d que 132
           124 SEA FILE=HCAPLUS ABB=ON PLU=ON THIOETHERS+OLD, NT/CT(L)?ISOBUT
            91 SEA FILE=HCAPLUS ABB=ON PLU=ON ETHERS+OLD/CT(L)?ISOBUT?
L13
          6080 SEA FILE=HCAPLUS ABB=ON PLU=ON
L14
                                                THIOETHERS+OLD, NT/CT(L) PREP/RL
L15
          5005 SEA FILE=HCAPLUS ABB=ON PLU=ON ETHERS+OLD/CT(L)PREP/RL
           37 SEA FILE=HCAPLUS ABB=ON PLU=ON (L12 OR L13) AND (L14 OR L15)
L16
           556 SEA FILE=HCAPLUS ABB=ON PLU=ON EPOXIDES+OLD, NT/CT(L)?ISOBUT?
         24927 SEA FILE=HCAPLUS ABB=ON PLU=ON EPOXIDES+OLD, NT/CT(L) (RACT OR
L18
               RGT OR RCT)/RL
L19
           222 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L18
L23
             3 SEA FILE=REGISTRY ABB=ON PLU=ON (POLYISOBUTENE/CN OR
               "POLYISOBUTENE RUBBER"/CN OR POLYISOBUTYLENE/CN OR "POLYISOBUTY
               LENE GLYCOL"/CN OR "POLYISOBUTYLENE PSG"/CN OR "POLYISOBUTYLENE
                RUBBER"/CN)
L25
          1665 SEA FILE=HCAPLUS ABB=ON PLU=ON L23(L) PREP/RL
           137 SEA FILE=HCAPLUS ABB=ON PLU=ON L23(L)?ETHER?
L27
            45 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 AND L26
        266695 SEA FILE=REGISTRY ABB=ON PLU=ON OC2/ESS
L30
        66991 SEA FILE=HCAPLUS ABB=ON PLU=ON L30(L)(RACT OR RGT OR RCT)/RL
L31
L32
             5 SEA FILE=HCAPLUS ABB=ON PLU=ON (L31 OR L19) AND (L27 OR L16)
```

=> d 132 ibib abs hitind hitstr 1-5

L32 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:427634 HCAPLUS

DOCUMENT NUMBER: 140:424120

TITLE: Polyisobutenyl ethers and thioethers

INVENTOR(S):
Lange, Arno; Mach, Helmut; Rath, Hans Peter;

Mijolovic, Darijo

PATENT ASSIGNEE(S): BASF Ag, Germany

SOURCE: Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PA	CENT :	NO.			KINI)	DATE			APP	LICAT	ION	NO.		D.	ATE		
							-									_			
	ΕP	1422	246			A2		2004	0526		EP 2	2003-	2665	0		2	0031	119	
	ΕP	1422	246			A 3		2004	1013										
												IT,						PT,	
		1025	ΙE,	SI	LT	μV,	FI,	RO,	MK,	CY,	AL	TR,	BG,	CZ,	EE,	HU,	SK		
	DE	1025	4924		1 State	´ A1		2004	0603		DE :	2002-	1025	4924		2	0021	125	
	US	2004	1026	53		A1		2004	0527		US 2	2003-	6984	57		2	0031	103	
PRIO	RIT	Y APP	LN.	INFO	. :						DE 3	2002-	1025	4924		A 2	0021	125	
AB																			
	epoxy-group-containing polyisobutenes with themselves, other epoxides and/or alcs. or thiols in the presence of Lewis acids or/and cationic																		
	a ₁	CS. O	r un,	TOTS	In I	ine p	res	ence	OL.	гемт	.s a	JIUS	OI/a	na c	atio.	nic			

photoinitiators under irradiation and are useful for curable compns. Thus, heating 30 g of the epoxidized polyisobutylene having mol. weight 1,000 in 150 mL of MeOH in the presence of I mL of boron trifluoride etherate for 3 h at 50° gives 36.7 g of an oil containing 70% of methoxyhydroxypolyisobutene.

IC ICM C08F008-00 ICS C08G081-02

CC 35-8 (Chemistry of Synthetic High Polymers)

IT Epoxides

RL: RCT (Reactant); RACT (Reactant or reagent)
(polyisobuteny) ether and thioether manufactured by reacting
terminal epoxy foup-containing polyisobutene with itself, other
epoxides and/or alcs. or thiols in the presence of Lewis acids or/and
cationic photoinitiators)

IT Ethers, preparation

Thioethers

RL: IMF (Industrial manufacture); PREP (Preparation)
(polyisobutyl; polyisobutenyl ether and thioether
manufactured by reacting terminal epoxy-group-containing polyisobutene
with itself, other epoxides and/or alcs. or thiols in the presence of
Lewis acids or/and cationic photoinitiators)

IT 67-56-1DP, Methanol, reaction products with epoxidized Polyisobutylene 9003-27-4DP, Polyisobutylene, epoxidized, reaction products with MeOH

RL: IMF (Industrial manufacture); PREP (Preparation)
(polyisobutenyl ether and thioether manufactured by
reacting terminal epoxy-group-containing polyisobutene with itself, other
epoxides and/or alcs. or thiols in the presence of Lewis acids or/and
cationic photoinitiators)

IT 9003-27-4DP, Polyisobutylene, epoxidized, reaction products with MeOH

MeOH

RL: IMF (Industrial manufacture); PREP (Preparation)
 (polyisobutenyl ether and thioether manufactured by reacting terminal epoxy-group-containing polyisobutene with itself, other epoxides and/or alcs. or thiols in the presence of Lewis acids or/and cationic photoinitiators)

RN 9003-27-4 HCAPLUS

CN 1-Propene, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

and the second of the second o

CM 1

CRN 115-11-7 CMF C4 H8

СH₂ || H₃C-С-СH₃

L32 ANSWER 2 OF 5 LHCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:244692 HCAPLUS

DOCUMENT NUMBER:

130:297412

The second secon

TITLE:

Glycidoxy-functional polymer cured with amine-functional organosilicon compound

INVENTOR(S): Li, Irene Q.; Suzuki, Toshio

PATENT ASSIGNEE(S): SOURCE:

Dow Corning Corporation, USA

PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.						D	DATE		APPLICATION NO.						DATE			
WO	9918137			A1	_	19990415		WO 1998-US19753						19980922				
	W:	AL,	AM,	J.T.A.	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,	
		DK,	EE	TES!	FI,	GB,	GE,	GH,	GM,	HU,	ID,	IL,	IS,	JΡ,	ΚE,	KG,	KP,	
		KR,	KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	
		NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	UA,	
		ŪG,	UZ,	VN,	YU,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM			
	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SZ,	UG,	ZW,	AT,	BE,	CH,	CY,	DE,	DK,	ES,	
		FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	
		CM,	GΑ,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG							
US 5977255							1999	1102	US 1997-944576						19971006			
ΑU	9894	991			A1		1999	0427	1	AU 1	998-	9499:	1		19	9980	922	
PRIORITY APPLN. INFO.:									US 1997-944576						19971006			
									1	WO 1	998-1	US19	753		19	9980	922	
	WO	WO 9918 W: RW: US 5977 AU 9894	WO 9918137 W: AL, DK, KR, NZ, UG, RW: GH, FI, CM, US 5977255 AU 9894991	WO 9918137 W: AL, AM, DK, EE, KR, KZ, NZ, PL, UG, UZ, RW: GH, GM, FI, FR, CM, GA, US 5977255 AU 9894991	WO 9918137 W: AL, AM, AT, DK, EEA ES, KR, KZ, LC, NZ, PL, PT, UG, UZ, VN, RW: GH, GM, KE, FI, FR, GB, CM, GA, GN, US 5977255 AU 9894991	WO 9918137 A1 W: AL, AM, AT, AV, DK, EFA ES, FI, KR, KZ, LC, LK, NZ, PL, PT, RO, UG, UZ, VN, YU, RW: GH, GM, KE, LS, FI, FR, GB, GR, CM, GA, GN, GW, US 5977255 A AU 9894991 A1	WO 9918137 A1 W: AL, AM, AT, AV, AZ, DK, EE, ES, FI, GB, KR, KZ, LC, LK, LR, NZ, PL, PT, RO, RU, UG, UZ, VN, YU, ZW, RW: GH, GM, KE, LS, MW, FI, FR, GB, GR, IE, CM, GA, GN, GW, ML, US 5977255 A AU 9894991 A1	WO 9918137 A1 1999 W: AL, AM, AT, AU, AZ, BA, DK, EE, ES, FI, GB, GE, KR, KZ, LC, LK, LR, LS, NZ, PL, PT, RO, RU, SD, UG, UZ, VN, YU, ZW, AM, RW: GH, GM, KE, LS, MW, SD, FI, FR, GB, GR, IE, IT, CM, GA, GN, GW, ML, MR, US 5977255 A 1999 AU 9894991 A1 1999	WO 9918137 A1 19990415 W: AL, AM, AT, AV, AZ, BA, BB, DK, EB, EB, FI, GB, GE, GH, KR, KZ, LC, LK, LR, LS, LT, NZ, PL, PT, RO, RU, SD, SE, UG, UZ, VN, YU, ZW, AM, AZ, RW: GH, GM, KE, LS, MW, SD, SZ, FI, FR, GB, GR, IE, IT, LU, CM, GA, GN, GW, ML, MR, NE, US 5977255 AU 9894991 A1 19990427	WO 9918137 A1 19990415 W: AL, AM, AT, AV, AZ, BA, BB, BG, DK, EE, ES, FI, GB, GE, GH, GM, KR, KZ, LC, LK, LR, LS, LT, LU, NZ, PL, PT, RO, RU, SD, SE, SG, UG, UZ, VN, YU, ZW, AM, AZ, BY, RW: GH, GM, KE, LS, MW, SD, SZ, UG, FI, FR, GB, GR, IE, IT, LU, MC, CM, GA, GN, GW, ML, MR, NE, SN, US 5977255 AU 9894991 A1 19990427 DRITY APPLN. INFO.:	WO 9918137 A1 19990415 WO 1 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, DK, EE, ES, FI, GB, GE, GH, GM, HU, KR, KZ, LC, LK, LR, LS, LT, LU, LV, NZ, PL, PT, RO, RU, SD, SE, SG, SI, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, FI, FR, GB, GR, IE, IT, LU, MC, NL, CM, GA, GN, GW, ML, MR, NE, SN, TD, US 5977255 A 19991102 US 1 DRITY APPLN. INFO.: US 1	WO 9918137 A1 19990415 WO 1998-1 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 5977255 A 19991102 US 1997- AU 9894991 A1 19990427 AU 1998- DRITY APPLN. INFO.: US 1997-	WO 9918137 W: AL, AM, AT, AV, AZ, BA, BB, BG, BR, BY, CA, DK, EB, ES, FI, GB, GE, GH, GM, HU, ID, IL, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 5977255 AU 9894991 DRITY APPLN. INFO.: WO 1998-US19 RI 19990427 AU 1998-9499 US 1997-94455	WO 9918137 A1 19990415 WO 1998-US19753 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, DK, EB, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 5977255 A 19991102 US 1997-944576 AU 9894991 A1 19990427 AU 1998-94991	WO 9918137 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 5977255 A 19991102 US 1997-944576 AU 9894991 AI 19990427 AU 1998-94991 DRITY APPLN. INFO.:	WO 9918137 Al 19990415 WO 1998-US19753 19 W: AL, AM, AT, AV, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 5977255 A 19991102 US 1997-944576 199894991 1998949991 199894991 199894991 199894991 199894991 199894991 199894991 199894991 199894991 199894991 199894991 199894991 199894991 199894991 199894991 199894991 199894991 199894991 199894991 1998949	WO 9918137 A1 19990415 WO 1998-US19753 19980 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK, EB, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 5977255 A 19991102 US 1997-944576 199710 DRITY APPLN. INFO:: US 1997-944576 199710	

- AB A hydrocarbon polymer having ≥2 glycidoxy groups is cured with an organosilicon compound having ≥2 N-bonded H groups as well as ≥1 Si-bonded group, e.g. silane. Thus, 1 g glycidoxy-functional polyisobutylene (based on Epion polymer) was cured with 0.12 g hexadecanol modified ethylenediaminopropyltrimethoxysilane at 60° in 24 h.
- IC ICM C08F008-42 ICS C08L023-22
- CC 37-6 (Plastics Manufacture and Processing)
- IT 106-92-3DP, Allyl glycidyl ether, reaction products with allyl-terminal polyisobutylene 9003-27-4DP, Polyisobutylene, allyl-terminal, reaction products with allyl glycidyl ether

RL: IMF (Industrial manufacture); RCT (Reactant); PREP

(Preparation); RACT (Reactant or reagent)

(glycidoxy-functional polymer cured with amine-functional organosilicon compound)

IT 106-92-3DP, Allyl glycidyl ether, reaction products with allyl-terminal polyisobutylene 9003-27-4DP,

Polyisobutylene, allyl-terminal, reaction products with allyl glycidyl ether

RL: IMF (Industrial manufacture); RCT (Reactant); PREP

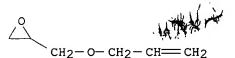
(Preparation); RACT (Reactant or reagent)

(glycidoxy-functional polymer cured with amine-functional organosilicon compound)

RN 106-92-3 HCAPLUS

CN Oxirane, [(2-propenyloxy)methyl] - (9CI) (CA INDEX NAME)

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RN 9003-27-4 HCAPLUS

Nwaonicha 10/698,457

1-Propene, 2-methyl-, homopolymer (9CI) (CA INDEX NAME) CN

115-11-7 CRN CMF C4 H8

CH₂ H3C-C-CH3

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1998:280131 HCAPLUS

DOCUMENT NUMBER:

129:162130

TITLE:

Preparation and structure of polyether-block

containing polymers

AUTHOR(S):

Boulares, A.; Rodrigues, C.; Rozes, L.; Tessier, M.;

Marechal, E.

CORPORATE SOURCE:

Laboratoire de Synthese Macromoleculaire, Universite

P.M. Curie, Paris, 75252, Fr.

SOURCE:

Macromolecules -- New Frontiers, Proceedings of the IUPAC International Symposium on Advances in Polymer Science and Technology, Chennai, India, Jan. 5-9, 1998 (1998), Volume 1, 45-50. Editor(s): Srinivasan, K. S.

V. Allied Publishers Ltd.: New Delhi, India.

CODEN: 65XTAB Conference

English

DOCUMENT TYPE:

LANGUAGE:

Block-copolyment prepared by direct polycondensation of functional AΒ oligomers or by polycondensation of a functional oligomer with the precursors of another block. Three series of copolymers were prepared and characterized: poly(polyamide 12-block-copolyether)s, polyisobutyleneblock-polyoxyethylene-graft-polyoxyethylene, and poly(semi-aromatic polyester-block-polyoxytetramethylene)s. The functional oligomers and the corresponding copolycondensates were characterized by SEC, infra-red spectroscopy, mass spectrometry, 1H and 13C NMR (solution and solid-state). Their thermal properties were analyzed and the extent of the segregation in poly(polyester semi-aromatic-block-polyoxytetramethylene)s was studied through viscoelastic properties.

37-3 (Plastics Manufacture and Processing) CC

Section cross-reference(s): 36, 75

106392-12-5, Ethylene oxide-propylene oxide block copolymer IT

RL: RCT (Reactant); RACT (Reactant or reagent)

(Synperonic L, Pluronic; preparation and structure and thermal properties of polyether block-containing polymers)

108-31-6DP, Maleic anhydride, reaction products with polyisobutylene, ΙT polymers with ethylene oxide, block, graft 9003-27-4DP, Polyisobutylene, indaction products with maleic anhydride, polymers with ethylene oxide block, graft 113381-65-0P 153728-85-9P 157380-65-9P 207002-91-3P 207002-92-4P 207002-93-5P 207002-94-6P 207002-95-7P 207136-98-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP



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(Preparation)
(preparati
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(preparation and structure and thermal properties of polyether block-containing polymers)

IT 106392-12-5, Ethylene oxide-propylene oxide block copolymer

RL: RCT (Reactant); RACT (Reactant or reagent)
 (Synperonic L, Pluronic; preparation and structure and thermal properties of
 polyether block-containing polymers)

RN 106392-12-5 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, block (9CI) (CA INDEX NAME)

CM 1

CRN 75-56-9

CMF C3 H6 O





CM 2

CRN 75-21-8 CMF C2 H4 O



9003-27-4DP, Polyisobutylene, reaction products with maleic anhydride, polymend with ethylene oxide, block, graft RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and structure and thermal properties of polyether block-containing polymers)

RN 9003-27-4 HCAPLUS

CN 1-Propene, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115-11-7 CMF C4 H8

СH₂ || H₃C-С-СH₃

REFERENCE COUNT:

THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN ACCESSION NUMBER: 1990:99433 HCAPLUS

Searched by Paul Schulwitz 571-272-2527

```
112:99433
DOCUMENT NUMBER:
TITLE:
                           The synthesis, characterization, and copolymerization
                           of the macromonomer \alpha-(p-phenyl glycidyl
                           ether)-ω-chloropolyisobutylene (PGE-PIB).
                          "The synthesis of PGE-PIB and its copolymerization with
                           epichlorohydrin and ethylene oxide
                           Kennedy, Joseph P.; Carter, J. D.
AUTHOR(S):
CORPORATE SOURCE:
                           Inst. Polym. Sci., Univ. Akron, Akron, OH, 44325-3909,
                           Macromolecules (1990), 23(5), 1238-43
SOURCE:
                           CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE:
                           Journal
                           English
LANGUAGE:
     The quant. readth between epichlorohydrin (I) and p-hydroxyphenyl-polyisobutylene (II) was a convenient preparation for the the title
                        between epichlorohydrin (I) and p-hydroxyphenyl-capped
     macromonomer (III). Reaction conditions were optimized by studying the
     epichlorohdrination of p-(1,1,3,3-tetramethylbutyl)phenol, a model compound
     for II. The number-average phenylene glycidyl ether functionality of III was
1.0
     ± 0.1. Graft copolymers of III with I or ethylene oxide were prepared
     and characterized by NMR, gel permeation chromatog., and DSC.
     35-8 (Chemistry of Synthetic High Polymers)
CC
     9003-27-4DP, Polyisobutylene, p-hydroxphenol-terminated, glycidyl
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
         (preparation and graft polymerization of, with oxirane or epichlorohydrin)
     106-89-8, Epichlorohydrin, reactions
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with hydroxyphenyl-terminated polyisobutylene
         or tetramethylbutylphenyl glycidyl ether)
     9003-27-4DP, Polyisobutylene, p-hydroxphenol-terminated, glycidyl
IT
     RL: RCT (Reactain SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
         (preparation and graft polymerization of, with oxirane or epichlorohydrin)
     9003-27-4 HCAPLUS
RN
CN
     1-Propene, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)
     CM
     CRN 115-11-7
     CMF C4 H8
     CH<sub>2</sub>
H3C-C-CH3
IT
     106-89-8, Epichlorohydrin, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
     (reaction of with hydroxyphenyl-terminated polyisobutylene or tetramethy by tylphenyl glycidyl ether)
106-89-8 HCAPLUS
RN
     Oxirane, (chloromethyl) - (9CI) (CA INDEX NAME)
CN
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CH2-Cl

L32 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1985:437525 HCAPLUS

DOCUMENT NUMBER:

103:37525

Reaction of diisobutylaluminum hydride with selected TITLE: organic compounds containing representative functional

groups

Yoon, Nung Min; Gyoung, Young Soo AUTHOR(S):

Dep. Chem., Sogang Univ., Seoul, 121, S. Korea CORPORATE SOURCE:

Journal of Organic Chemistry (1985), 50(14), 2443-50

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE:

Journal English

OTHER SOURCE(S):

LANGUAGE:

CASREACT 103:37525

The approx. rates and stoichiometry of the reaction of excess (Me2CHCH2)2AlH (DIBAH) with 69 selected organic compds. containing

functional groups were examined under standardized conditions (PhMe, 0°) in order to compare its reducing characteristics with AlH3 (previously examined) and to enlarge the scope of its applicability as a " reducing agent. Primary, secondary and tertiary alcs., simple phenols, and thiols evolve H rapidly and quant. However, DIBAH reacts with only $\boldsymbol{1}$ active H in primary amines. Aldehydes and ketones of diverse structure are reduced rapidly and quant. to the corresponding alcs. Reduction of norcamphor gives 7% exo- and 93% endo-norborneol. Conjugated aldehyde and ketones such as PhCH:CHCHO, MeCOCH:CH2 and isophorone are reduced rapidly and cleanly to the corresponding allylic alcs. Anthraquinone is mainly reduced to 9,10-dihydro-9,10-anthracenediol. RCO2H (R = Bu, Ph, MeCH:CH) liberate H rapid but only partially and very slowly. The acid chlorides and esters tested are all reduced rapidly and quant. to the corresponding alcs. Alkyl halides, such as n-octyl iodide, and aromatic halides, such as p-BrC6H4Me, are all inert toward this reagent. However, epoxides are reduced rapidly with an uptake of 1 equiv of hydride. Styrene oxide is reduced to give 27% 1- and 73% 2-phenylethanol. Tertiary amides are reduced rapidly in 0.5 h, whereas primary amides are reduced only very slowly. Nitriles consume 1 equiv of hydride rapidly, but further hydride uptake is very sluggish. Nitro compds., PhN:NPh and PhN(O):NPh were reduced moderately. Cyclohexanone oxime liberates H rapidly, consuming 1.2 equiv of hydride for reduction However, further and the second s reduction

is very slow. PhNCO is rapidly reduced to the imine stage. Pyridine reacts at a moderate rate with an uptake of 1 hydride over 12 h; however, further reaction is very slow. Disulfides are reduced rapidly, whereas sulfides, sulfones and sulfonic acids are inert to BIBAH under these reaction conditions. Me2SO is reduced at a moderate rate. n-Octyl to sylate is reduced quant. to n-octane within 0.5 h at 0° , whereas cyclohexyl tosylate undergoes elimination, liberating 1 equiv H rapidly to give 95% cyclohexene

29-5 (Organometalloidal Compounds) CC

IT 75-18-3P

RL: SPN (Synthetic preparation); PREP (Preparation)



```
(preparation, by reaction of diisobutylaluminum hydride with DMSO)
IT
            55-21-0
                                    65-85-0, reactions 66-25-1 67-68-5, reactions 75-75-2
                                                                                       84-65-1
                                                                                                                                        87-41-2
            78-59-1
                                    78-94-4, reactions
                                                                                                               85-44-9
                                                                                                                                                                93-89-0
            96-09-3
                                    96-48-0 98-86-2, reactions
                                                                                                               98-88-4
                                                                                                                                        98-95-3,
            reactions
                                         100-47-0, reactions
                                                                                               100-51-6, reactions
                                                                                                                                                    100-52-7,
            reactions
                                         100-64-1
                                                                 103-33-3
                                                                                              103-71-9, reactions
                                                                                                                                                    104-15-4,
            reactions 104-55-2 -- 106-51-4; reactions 106-88-7 - 107-13-1,
                                     108-03-2
                                                                108-22-5
                                                                                           108-24-7
            reactions
                                                                                                                     108-30-5, reactions
            108-95-2, reactions
                                                               108-98-5, reactions
                                                                                                                       110-43-0
                                                                                                                                                 110-86-1, reactions
            111-26-2
                                      111-27-3, reactions
                                                                                            111-31-9
                                                                                                                      111-83-1
                                                                                                                                                 119-61-9, reactions
                                                                                            141-43-5, reactions
            122-79-2
                                      123-66-0
                                                                 128-39-2
                                                                                                                                                142-62-1, reactions
                                      495-48-7
                                                                 597-49-9
                                                                                            611-74-5
            286-20-4
                                                                                                                       613-91-2
            623-13-2
                                      623-37-0
                                                                  628-02-4
                                                                                            628-73-9
                                                                                                                       629-45-8
                                                                                                                                                 694-59-7
            882-33-7
                                                                 1600-44-8 1713-33-3
                                      953-91-3
                                                                                                                       3386-35-4
           3724-65-0 5830-30-8, 10544-63-5
RL: RCT (Reactant) (RACT (Reactant or reagent) (reaction of) with disobutylaluminum hydride)
IT
            75-18-3P
            RL: SPN (Synthetic preparation); PREP (Preparation)
                   (preparation, by reaction of diisobutylaluminum hydride with DMSO)
            75-18-3 HCAPLUS
RN
            Methane, thiobis- (9CI) (CA INDEX NAME)
CN
H3C-S-CH3
                                             and the second of the second o
IT
            96-09-3 106-88-7 286-20-4 623-13-2
            1713-33-3
            RL: RCT (Reactant); RACT (Reactant or reagent)
                    (reaction of, with disobutylaluminum hydride)
RN
            96-09-3 HCAPLUS
CN
            Oxirane, phenyl- (9CI) (CA INDEX NAME)
RN
            106-88-7 HCAPLUS
CN
            Oxirane, ethyl- (9CI) (CA INDEX NAME)
             CH2-CH3
RN
            286-20-4 HCAPLUS
            7-Oxabicyclo[4.1.0]heptane (8CI, 9CI) (CA INDEX NAME)
CN
```



RN 623-13-2 HCAPLUS

CN Benzene, 1-methyl-4-(methylthio)- (9CI) (CA INDEX NAME)

MeS

RN 1713-33-3 HCAPLUS

CN 7-Oxabicyclo[4.1.0]heptane, 1-methyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)





William !

HAMA

L9 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:427634 HCAPLUS

DOCUMENT NUMBER: 140:424120

ENTRY DATE: Entered STN: 27 May 2004

TITLE:

, Polyisobutenyl ethers and thioethers

INVENTOR(S):

Lange, Arno; Mach, Helmut;

Rath, Hans Peter; Mijolovic, Darijo

PATENT ASSIGNEE(S):

SOURCE:

BASF Ag, Germany Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

LANGUAGE:

Patent German

INT. PATENT CLASSIF.:

MAIN: SECONDARY:

C08F008-00 C08G081-02

CLASSIFICATION:

35-8 (Chemistry of Synthetic High Polymers)

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PA'	PATENT NO. KINI						D DATE			APP	LICAT	DATE					
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	EP	1422	2246			A2		2004	0526		ΕP	2003-	2665	0		2	0031	119
	EP	1422	246			A3		2004	1013									
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT,
								RO,	MK,	CY,	ΑL	, TR,	BG,	CZ,	EE,	HU,	SK	
	DE	1025	4924 11026		-4.11	> A1		2004	0603		DΕ	2002-	1025	4924		2	0021	125
	US	2004	1026	53 🔡	. Y.爱有春. 11	A1		2004	0527		US	2003-	6984	57		2	0031	103
PF	RIORIT	Y APE	LN.	INFO	. :						DE	2002-	1025	4924	1	A 2	0021	125

PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1422246	ICM	C08F008-00
	ICS	C08G081-02
EP 1422246	ECLA	C08F008/00+10/10

ABSTRACT:

Polyisobutenyl ethers and thioethers are manufactured by reacting terminal epoxy-group-containing polyisobutenes with themselves, other epoxides and/or alcs. or thiols in the presence of Lewis acids or/and cationic photoinitiators under irradiation and are useful for curable compns. Thus, heating 30 g of the epoxidized polyisobutylene having mol. weight 1,000 in 150 mL of MeOH in the presence of 1 mL of boron trifluoride etherate for 3 h at 50° gives 36.7 g of an oil containing 70% of methoxyhydroxypolyisobutene.

SUPPL. TERM:

polyisobutenyl ether thioether manuf; reaction epoxy group contg polyisobutene epoxide alc thiol; Lewis acid cationic photoinitiator; epoxidized polyisobutylene methanol boron triffuoride etherate

INDEX TERM:

Halides

Sec. 6 31

natices

ROLE: CAT (Catalyst use); USES (Uses)

(B and other, Lewis acids; polyisobutenyl ether and

thioether manufactured by reacting terminal

epoxy-group-containing

polyisobutene with itself, other epoxides and/or alcs. or thiols in the presence of Lewis acids or/and cationic

photoinitiators)

المعاصون والمعافق والمعاصف فيوال فالمسروا والأراد المالية

INDEX TERM:

Sulfonium compounds

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ROLE: CAT (Catalyst use); USES (Uses)
                      (cationic photoinitiators; polyisobutenyl ether and
                      thioether manufactured by reacting terminal
epoxy-group-containing
                      polyisobutene with itself, other epoxides and/or alcs. or
                      thiols in the presence of Lewis acids or/and cationic
                      photoinitiators)
                   Rare earth compounds
ROLE: CAT (Catalyst use); USES (Uses)
INDEX TERM:
                      (halides and sulfonates, Lewis acids; polyisobutenyl
                      ether and thioether manufactured by reacting terminal
                      epoxy-group-containing polyisobutene with alcs. or thiols in
                      the presence of Lewis acids or/and cationic
                      photoinitiators)
INDEX TERM:
                   Onium compounds
                   ROLE: CAT (Catalyst use); USES (Uses)
                      (iodonium, cationic photoinitiators; polyisobutenyl ether
                      and thioether manufactured by reacting terminal
                   ___epoxy-group-containing polyisobutene with itself, other ...
                      epoxides and/or alcs. or thiols in the presence of Lewis
                      acids or/and cationic photoinitiators)
INDEX TERM:
                      (photochem.; polyisobutenyl ether and thioether manufactured
                      by reacting terminal epoxy-group-containing polyisobutene,
                      useful for curable compns.)
INDEX TERM:
                   Lewis acids
                   ROLE: CAT (Catalyst use); USES (Uses)
                     Mpolyisobutenyl ether and thioether manufactured by reacting
                   我 terminal epoxy-group-containing polyisobutene with itself,
                      other epoxides and/or alcs. or thiols in the presence of
                      Lewis acids or/and cationic photoinitiators)
INDEX TERM:
                   Alcohols, reactions
                   ROLE: RCT (Reactant); RACT (Reactant or reagent)
                      (polyisobutenyl ether and thioether manufactured by reacting
                      terminal epoxy-group-containing polyisobutene with itself,
                      other epoxides and/or alcs. or thiols in the presence of
                      Lewis acids or/and cationic photoinitiators)
                  Epoxides
ROLET (Reactant); RACT (Reactant or reagent)
INDEX TERM:
                      (polyisobutony) ether and thioether manufactured by reacting
                      terminal epoxy-group-containing polyisobutene with itself,
                      other epoxides and/or alcs. or thiols in the presence of
                      Lewis acids or/and cationic photoinitiators)
INDEX TERM:
                   Thiols (organic), reactions
                   ROLE: RCT (Reactant); RACT (Reactant or reagent)
                      (polyisobutenyl ether and thioether manufactured by reacting
                      terminal epoxy-group-containing polyisobutene with itself,
                     Wother epoxides and/or alcs. or thiols in the presence of
                   Tewis acids or/and cationic photoinitiators)
                   Crosslinking
INDEX TERM:
                   Ring opening catalysts
                      (polyisobutenyl ether and thioether manufactured by reacting
                      terminal epoxy-group-containing polyisobutene, useful for
                      earable compns.)
                   Ethers preparation
INDEX TERM:
                   Thioethers
                   ROLE: IMF (Industrial manufacture); PREP (Preparation)
```

(polyisobutyl; polyisobutenyl ether and thioether manufactured by reacting terminal epoxy-group-containing polyisobutene with itself, other epoxides and/or alcs. or thiols in the presence of Lewis acids or/and cationic photoinitiators)

Sulfonic acids, uses

ROLE: CAT (Catalyst use); USES (Uses)

(salts, B and other, Lewis acids; polyisobutenyl ether and thioether manufactured by reacting terminal

ledoxy-group-containing polyisobutene with itself, other A Pepoxides and/or alcs. or thiols in the presence of Lewis

acids or/and cationic photoinitiators)

7429-90-5D, Aluminum, halides and sulfonates 7439-89-6D, Iron, halides and sulfonates 7440-31-5D, Tin, halides and sulfonates 7440-32-6D, Titanium, halides and sulfonates 7440-36-0D, Antimony, halides and sulfonates 7440-42-8D, Boron, halides and sulfonates 7440-55-3D, Gallium, halides and sulfonates 7440-62-2D, Vanadium, halides and sulfonates 7446-70-0, Aluminumtrichloride, uses 7550-45-0, Titanium tetrachloride, uses 7637-07-2, 7705-08-0, Iron trichloride, uses. Borontrifluoride, uses 10294-34-5, Borontrichloride

ROLE: CAT (Catalyst use); USES (Uses)

(Lewis acids; polyisobutenyl ether and thioether manufactured by reacting terminal epoxy-group-containing polyisobutene with itself, other epoxides and/or alcs. or thiols in the presence of Lewis acids or/and cationic photoinitiators)

109-63-7, Borontrifluoride etherate ROLE: CAT (Catalyst use); USES (Uses)

hophyisobutenyl ether and thioether manufactured by reacting Terminal epoxy-group-containing polyisobutene with itself, other epoxides and/or alcs. or thiols in the presence of

Lewis acids or/and cationic photoinitiators)

67-56-1DP, Methanol, reaction products with epoxidized Polyisobutylene 9003-27-4DP, Polyisobutylene, epoxidized, reaction products with MeOH

ROLE: IMF (Industrial manufacture); PREP (Preparation) (polyisobutenyl ether and thioether manufactured by reacting terminal epoxy-group-containing polyisobutene with itself, other epoxides and/or alcs. or thiols in the presence of Lewis acids or/and cationic photoinitiators)

INDEX TERM:

INDEX TERM:

INDEX TERM:

INDEX TERM: